

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF (AE-17J)

JUI 29 2004

CERTIFIED MAIL RETURN RECEIPT REQUESTED

W.R. Chokran, Plant Manager Royster-Clark Nitrogen 10743 Brower Road North Bend, Ohio 45052

Re: Notice of Violation and Finding of Violation

Royster-Clark Nitrogen North Bend, Ohio

Dear Mr. Chokran:

The United States Environmental Protection Agency (U.S. EPA) is issuing the enclosed Notice of Violation (NOV) and Finding of Violation (FOV) to Royster-Clark Nitrogen (Royster-Clark) under Section 113(a)(1) and (a)(3) of the Clean Air Act, 42 U.S.C. § 7413(a)(1) and (a)(3). We find that you are violating Prevention of Significant Deterioration requirements in Part C of the Clean Air Act, 42 U.S.C. §§ 7470-7479 and 42 U.S.C. §§ 7491-7492, Sections 502 and 503 of the Clean Air Act, 42 U.S.C. §§ 7661a-7661b, the Ohio State Implementation Plan, and the Federal Standards of Performance for Nitric Acid Plants, 40 C.F.R. §§ 60.70 et seq. at your North Bend, Ohio facility.

Section 113 of the Clean Air Act gives us several enforcement options. These options include issuing an administrative compliance order, issuing an administrative penalty order, and bringing a judicial civil or criminal action. The options we select may depend on, among other things, the length of time you take to achieve and demonstrate continuous compliance with the rules cited in the NOV/FOV.

We are offering you an opportunity to confer with us about the violations alleged in the NOV/FOV. The conference will give you an opportunity to present information on the specific findings of violation, any efforts you have taken to comply, and the steps you will take to prevent future violations.

Please plan for your facility's technical and management

personnel to attend the conference to discuss compliance measures and commitments. You may have an attorney represent you at this conference if you choose.

The contacts in this matter are Nathan A. Frank P.E., Environmental Engineer, and Joanna Glowacki, Associate Regional Counsel. You may call them at (312) 886-3850 and (312) 353-3757 respectively to request a conference. You should make the request as soon as possible, but no later than 10 calendar days after you receive this letter. We should hold any conference within 30 calendar days of your receipt of this letter.

Sincerely yours,

Stephen Rothblatt, Director Air and Radiation Division

cc: Robert Hodanbosi, Chief
Ohio Environmental Protection Agency

Cory Chadwick, Director Hamilton County Department of Environmental Services

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 5

IN THE MATTER OF:)
Royster-Clark Nitrogen North Bend, Ohio) NOTICE AND FINDING OF VIOLATION
) EPA-5-04-OH-15
Proceedings Pursuant to)
Section 113(a)(1) and (a)(3))
of the Clean Air Act, 42)
U.S.C. § 7413(a)(1) and)
(a) (3))
)

NOTICE AND FINDING OF VIOLATION

The Administrator of the United States Environmental Protection Agency (U.S. EPA) is issuing this Notice of Violation and Finding of Violation under Section 113(a)(1) and (a)(3) of the Clean Air Act (CAA or the Act), 42 U.S.C. § 7413(a)(1) and (a)(3). U.S. EPA finds that Royster-Clark Nitrogen is violating Part C of the CAA and the Ohio State Implementation Plan (SIP), the Federal New Source Performance Standards (NSPS) for Nitric Acid Plants, 40 C.F.R. §§ 60.70 et seq. and Sections 502 and 503 of the CAA, 42 U.S.C. § 7661a-7661b, as follows:

Statutory and Regulatory Background

National Standards of Performance for Nitric Acid Plants

- 1. Section 111(e) of the Act, 42 U.S.C. § 7411(e), provides that after the effective date of a standard of performance promulgated under this section, it is unlawful for any owner or operator of any new source to operate such source in violation of that standard.
- 2. Section 111(a)(2) of the Act, 42 U.S.C. § 7411(a)(2), defines the term "new source" as any stationary source, the construction or modification of which is commenced after the publication of regulations (or, if earlier, proposed regulations) prescribing a standard of performance applicable to such source.
- 3. Construction or modification is "commenced" when an owner or operator of a stationary source undertakes "a continuous program of construction or modification," or enters into a "contractual obligation to undertake and complete, within a

reasonable time, a continuous program of construction or modification." 40 C.F.R. § 60.2.

- 4. Section 111(a)(4) of the Act, 42 U.S.C. § 7411(a)(4), defines "modification," in pertinent part, as "any physical change in, or change in the method of operation of, a stationary source which increases the amount of any air pollutant emitted by such source . . ." This definition requires that the physical or operational change result in an increase in emission of any pollutant for which a standard applies. 40 C.F.R. §60.14(a). A net emission increase is calculated by comparing the hourly emission rate, at maximum physical capacity, before and after the physical or operational change.
- 5. A modified stationary source must comply with all applicable standards within 180 days from the completion of any physical or operational change. 40 C.F.R. § 60.14(g).
- 6. 40 C.F.R. §60.7 requires, in pertinent part, that any owner or operator subject to the provisions of Part 60 provide written notification of the date of construction, the date of start up, and the date of any physical or operational change to a NSPS affected facility.
- 7. 40 C.F.R. §60.8 states, in pertinent part, any owner or operator of an affected facility shall conduct a performance test(s) and furnish the Administrator a written report of the results within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial start up.
- 8. U.S. EPA proposed the NSPS for nitric acid plants on August 17, 1971. 36 Fed. Reg. 15704. U.S. EPA promulgated the NSPS for nitric acid plants, Subpart G, on December 23, 1971. 36 Fed. Reg. 24881.
- 9. 40 C.F.R. § 60.71 defines a nitric acid production unit to mean any facility producing weak nitric acid by either the pressure or atmospheric pressure process.
- 10. The Nitric Acid Plant NSPS, Subpart G, at 40 C.F.R. § 60.72(a), provides that, on or after the date of which the performance test required to be conducted by §60.8 is completed, no owner or operator of any nitric acid production unit shall cause to be discharged into the atmosphere from any affected facility any gases which: (1)

- Contain nitrogen oxides, expressed as NO_2 , in excess of 1.5 kilograms per metric ton of acid produced (kg/ton) (3.0 pounds per ton of acid produced (lbs/ton)), the production being expressed as 100 percent nitric acid; (2) Exhibit 10 percent opacity or greater.
- 11. The Nitric Acid Plant NSPS at 40 C.F.R. § 60.73(a) requires that the source owner or operator install, calibrate, maintain, and operate a continuous monitoring system (CEMS) for measuring nitrogen oxides (NOx). 40 C.F.R. § 60.73(c) requires that the owner operator record the daily production rate and hours of operation.

Prevention of Significant Deterioration

- 12. On June 19, 1978, U.S. EPA promulgated the prevention of significant deterioration (PSD) of air quality standards pursuant to Subtitle I, Part C of the Act. The PSD regulations were revised on August 1, 1980 (45 Fed. Reg. 52676). These regulations are codified at 40 C.F.R. § 52.21 (43 Fed. Reg. 26403).
- 13. Part C of Title I of the Act and the PSD regulations implementing Part C, at 40 C.F.R. § 52.21, prohibit a major stationary source from constructing a modification without first obtaining a PSD permit, if the modification is major in that it will result in a significant net increase in emissions of a regulated pollutant, and if the source is located in an area which has achieved the National Ambient Air Quality Standards (NAAQS) for that pollutant. Part C and its implementing regulations further require that a source subject to PSD regulations install Best Available Control technology (BACT). 40 C.F.R. § 52.21(j).
- 14. 40 C.F.R. § 52.21(b)(1)(i)(a) defines a "major stationary source" as any stationary source within one of 28 source categories which emits, or has the potential to emit, 100 tons per year or more of any air pollutant subject to regulation under the Act. Nitric acid plants are included among the 28 source categories.
- 15. 40 C.F.R. § 52.21(b)(2)(i) defines a "major modification" as any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under the Act.
- 16. 40 C.F.R. § 52.21(b)(3)(i) defines "net emissions increase"

- as "the amount by which the sum of the following exceeds zero:
- (a) Any increase in actual emissions from a particular physical change or change in method of operation at a stationary source; and
- (b) Any other increases and decreases in actual emissions at the source that are contemporaneous with the particular change and are otherwise creditable."
- 17. In reference to nitrogen oxides (NOx), significant net emissions increase means an emissions rate of 40 tons or more per year of NOx. 40 C.F.R. § 52.21(b)(23)(i).
- 18. An applicant for a permit to modify a stationary source is required to provide all relevant information to allow the permitting authority to perform an analysis or make the determination required in order to issue the appropriate permit. 40 C.F.R. § 52.21(n).
- 19. The PSD regulations were incorporated into the Ohio SIP on August 7, 1980. 40 C.F.R. § 52.738 (45 Fed. Reg. 52741, August 7, 1980, as amended at 46 Fed. Reg. 9584, January 29, 1981).
- 20. On October 10, 2001, Ohio received approval for a SIP approved PSD program (66 Fed. Reg. 51570, October 10, 2001). Ohio's PSD program is located in Ohio Administrative Code (OAC) 3745-31-01 through 3745-31-20.

Requirements for SIP Permits to Install

21. U.S. EPA originally approved OAC 3745-31 as part of the federally enforceable Ohio State Implementation Plan on October 31, 1980 (45 Fed. Reg. 72119). This approval included OAC Rule 3745-31-02. OAC Rule 3745-31-02(A) states that no person shall cause, permit, or allow the installation of a new source of air pollutants without first obtaining a permit to install from the director.

Requirements for Title V Operating Permits

- 22. Section 502(a) of the CAA, 42 U.S.C. § 7661a(a), and 40 C.F.R. § 70.7(b) provide that, after the effective date of any permit program approved or promulgated under Title V of the CAA, no source subject to Title V may operate except in compliance with a Title V permit.
- 23. 40 C.F.R. § 70.1(b) provides that all sources subject to the

- Part 70 regulations shall have a permit to operate that assures compliance by the source with all applicable requirements, as defined in 40 C.F.R. § 70.2.
- 24. Section 503(c) of the CAA, 42 U.S.C. § 7661b(c), requires any person required to have a permit under Title V to timely submit an application for a permit.
- 25. 40 C.F.R. § 70.5(a) provides that an owner or operator shall submit a timely and complete permit application in accordance with Part 70 requirements.
- 26. 40 C.F.R. § 70.7(b) provides that no source subject to Part 70 requirements may operate without a permit as specified in the CAA.
- 27. U.S. EPA promulgated final approval of the Ohio Title V program on October 1, 1995, and the program became effective on that date. Ohio's Title V permit requirements are codified at OAC 3745-77.
- 28. OAC 3745-77-02(A) prohibits operation of a source subject to Title V permitting requirements without a permit as specified in the Clean Air Act. Sources in Hamilton County with a zip code of 45052 were required by OAC 3745-77-04(B) to submit their Title V permit application within 60 days after approval of Ohio's Title V permit program, or November 30, 1995.
- 29. OAC 3745-77-03(C)(3)(a) requires each Title V permit application to provide the emissions of each regulated air pollutant for which the source is major, and provide additional information related to the emissions of air pollutants sufficient to verify which requirements are applicable to the source.
- 30. OAC 3745-77-03(C)(3)(c) requires each Title V permit application to identify and describe all points of emissions in sufficient detail to establish both the basis for fees and the applicability of any applicable requirement.
- 31. OAC 3745-77-03(F) requires any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application to promptly submit such supplementary facts or corrected information upon becoming aware of such failure or incorrect submittal.

Royster-Clark's Facility

- 32. Royster-Clark owns and operates a nitric acid plant at 10743 Brower Road, North Bend, Ohio, 45052.
- 33. Royster-Clark's facility meets the definition of "nitric acid production unit" in 40 C.F.R. § 60.71.
- 34. Royster-Clark's facility meets the definition of "major stationary source" in 40 C.F.R. § 52.21(b)(1)(i)(a), because it is a nitric acid plant that has the potential to emit in excess of 100 tons of NOx per year.
- 35. On or about 1990, a heat train revision was performed on the nitric acid plant. This involved redesigning and replacing the plant's heat train. At this time, the air preheater, ammonia converter, turbine gas heater, steam superheater, ammonia/air mixer, tailgas heater, ammonia vaporizer, boiler feedwater economizer, stage 1 boiler, stage 2 boiler, and steam drum were replaced.
- 36. Subsequent to the heat train revision project, the following activities were performed on the nitric acid plant:
 - 1991 Modification to Secondary Absorber
 - 1992 Tail Gas Preheater upgrade
 - 1992 Cooler Condenser upgrade
 - 1994 Platinum Filter upgrade
 - 1994 Air compressor filters installation
 - 1996 Expander Turbine Upgrade
 - 1996 Compressor train intercoolers replacement
- 37. The activities discussed in paragraphs 35 and 36 above, in aggregate, increased the 100% nitric acid production capacity of the nitric acid plant from 230 tons per day in 1989 to 304 tons per day by 2002. As a result of this capacity increase, the emission rate of NOx to the atmosphere from the nitric acid plant, expressed in kg/hr, increased.
- 38. As a result of this capacity increase, the emissions of NOx from the nitric acid plant increased from 134 tons per year (average) in 1988 and 1989 to 217 tons per year in 2002. This demonstrates increases in emissions of 83.5 tons of NOx per year, greater than 40 tons per year.
- 39. Royster-Clark operates a 7,000,000 gallon anhydrous ammonia storage tank equipped with a flare which is used

intermittently to regulate pressure inside of the tank.

- 40. When the ammonia flare is in operation, it causes the emission of NOx into the atmosphere.
- 41. Royster-Clark's facility is subject to Title V of the CAA (Sections 502 and 503) because it is a major source (as defined in Section 501(2) of the CAA) with the potential to emit more than 100 tons of NOx per year. Royster Clark became subject to the requirements of Title V on November 30, 1995.
- 42. Royster Clark was required to submit a complete Title V permit application to the State of Ohio no later than November 30, 1995.
- 43. To date, Royster Clark has not submitted a complete Title V permit application to the State of Ohio.
- 44. As of the date of this FOV/NOV, Royster Clark is operating its facility in North Bend.
- 45. As a major source, Royster-Clark's facility is subject to the PSD regulations in the Ohio SIP, and the requirements to obtain PSD permits to install incorporating such PSD requirements, as required by the CAA and the Ohio SIP rules.
- 46. The nitric acid plant was shown to be emitting 4.4 lbs of NOx per ton of 100% nitric acid produced during an April 23 and 24, 1991 emissions test. This is greater than the NSPS standard, in 40 C.F.R. §60.72(a), of 3.0 lbs of NOx per ton of 100% nitric acid produced.
- 47. Royster-Clark's nitric acid plant is not equipped with a NOx CEMS meeting Performance Specification 2 in 40 C.F.R. Part 60 Appendix B.

Violations

- 48. The activities described in paragraphs 35 and 36 triggered NSPS "modification" provisions in 40 C.F.R. §60.14. As a result, Royster-Clark's facility is subject to 40 C.F.R. Part 60 Subpart G.
- 49. Royster-Clark or its predecessor failed to notify U.S. EPA of the heat train revision project, which resulted in modification of its facility, in violation of 40 C.F.R. §60.7.

- 50. Royster-Clark or its predecessor failed to conduct a performance test of its nitric acid plant within 180 days after the heat train revision project and furnish the U.S. EPA a written report of the results, in violation of 40 C.F.R. §60.8.
- 51. Royster-Clark has emitted, and continues to emit into the atmosphere, NOx in excess of 1.5 kilograms per metric ton of acid produced (kg/ton) (3.0 lbs/ton) from its nitric acid plant, in violation of 40 C.F.R. §60.72(a).
- 52. Royster-Clark's nitric acid plant is not equipped with a properly installed, calibrated, and maintained continuous emission monitor which meets Performance Specification 2 in 40 C.F.R. Part 60 Appendix B, in violation of 40 C.F.R. § 60.73(a).
- 53. The activities described in paragraphs 35 and 36 caused emissions of NOx to increase above the significance level resulting in a "major modification" as defined in 40 C.F.R. § 52.21(b)(2).
- 54. Royster-Clark or its predecessor failed to apply for a PSD permit or undergo PSD review, including applying BACT, prior to these activities, as required by the CAA. As such, Royster-Clark is in violation the Ohio SIP rule and 40 C.F.R. § 52.21(i).
- 55. Royster-Clark or its predecessor failed to provide the permitting authorities with all relevant information necessary for the permitting authorities to perform an analysis of whether its proposed heat train revision project was a "major modification," in violation of the Ohio SIP rules and 40 C.F.R. § 52.21(r).
- 56. Royster-Clark or its predecessor has operated and continues to operate its facility without obtaining a PSD permit to install for heat train revision project, violating the Ohio SIP rules and 40 C.F.R. § 52.21(i).
- 57. The violation noted in paragraph 56 exists from at least the date of start of construction and continues until the appropriate permits are obtained and the necessary pollution control equipment is installed and operated.
- 58. Royster-Clark or its predecessor's failure to submit a timely and complete Title V permit application to the State of Ohio, with information pertaining to the activities

described in paragraphs 35 and 36 and information pertaining to the emission of NOx from the ammonia flare, constitutes a violation of Section 503 of the CAA and the regulations at 40 C.F.R. §§ 70.5(a) and 70.7(b). Such failure also constitutes a violation of the regulations at OAC 3745-77-02 and OAC 3745-77-03 and Section 502 of the CAA.

- 59. Royster Clark's operation without an operating permit issued by the State of Ohio constitutes a violation of section 502 of the CAA and of 40 C.F.R. §§ 70.1(b) and 70.7(b).
- 60. The violation noted in paragraph 59 exists from the date Royster-Clark or its predecessor was required to submit a Title V permit application, and continues until Royster-Clark submits a complete Title V permit application.

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CERTIFICATE OF MAILING

I, Loretta Shaffer, certify that I sent a Notice of Violation/Finding of Violation, No. EPA-5-04-OH-15, by Certified Mail, Return Receipt Requested, to:

W.R. Chokran, Plant Manager Royster-Clark Nitrogen 10743 Brower Road North Bend, Ohio 45052

I also certify that I sent copies of the Notice of Violation/Finding of Violation by first class mail to:

Robert Hodanbosi, Chief Division of Air Pollution Control Ohio Environmental Protection Agency Lazarus Government Center P.O. 1049 Columbus, Ohio 43216-1049

and

Cory Chadwick, Director
Department of Environmental Services
Air Quality Programs
250 William Howard Taft Road
Cincinnati, Ohio 45219-2660

on the and day of Aug , 2004.

Loretta Shaffer, Secretary

AECAS, (MN/OH) (312) 353-5723

CERTIFIED MAIL RECEIPT NUMBER: 700/ 0320 0004 1558 56/8